AMENDMENTS IN THE CLAIMS

1. (currently amended) A system for allocating radio spectral resources to data and voice traffic in a communication network that supports shared frequency transmissions, said system comprising:

means for receiving data traffic and voice traffic;

processing means for dynamically ~~allocating~~ assigning a first percentage of said spectral resources to said data traffic and a second percentage of said spectral resources to said voice traffic, wherein said first percentage and said second percentage add up to at least 100 percent of the available spectral resources and each percentage is ~~are~~ dynamically adjustable depending on a presently determined need for data traffic and voice traffic and wherein further when the first and second percentages add up to more than 100 percent, an overlapping percentage of said spectral resources is dynamically allocated to a particular one of said voice traffic and said data traffic based on a cost factor analysis for voice and data traffic; and

means, responsive to said dynamically allocating, for transmitting both said data traffic and said voice traffic as radio frequency (RF) transmissions out to said communication network, wherein said data traffic and said voice traffic are transmitted in their respective allocated percentage of said spectral resources.

2. (original) The system of Claim 1, wherein said dynamically allocating means further comprises means for determining a current allocated percentage for said voice and data traffic utilizing a cost factor analysis which maximizes revenue.

3. (currently amended) The system of Claim 1, wherein said processing means includes:

means for monitoring current spectral resources allocated to both said data traffic and said voice traffic;

means for providing a data window and a voice window bordering an actual percentage utilization of said data traffic and said voice traffic, respectively, wherein a size of each of said windows is adjustable;

means for sliding said data window and said voice window to accommodate a request for additional percentage allocation of said radio frequency to said data traffic and said voice traffic, respectively, wherein said means for sliding expands each percentage of spectral resources

allocated to said data traffic and said voice traffic up to a dynamic threshold value, which overlaps into the window of the other type of traffic.

4. (original) The system of Claim 3, further comprising:

means for calculating said dynamic threshold value as a function of current percentage allocation, desired need for both data and voice traffic, and cost, wherein said dynamic threshold value represents a point of overlap of said data window and said voice window.

5. (currently amended) The system of Claim 3, further comprising means, responsive to a total need of said data traffic and said voice traffic surpassing 100 percent of available spectral resources, for:

overlapping said windows up to said dynamic threshold value; and

allocating a percentage of spectral resources within said overlapping windows to either voice or data depending on a predetermined priority for assigning the overlapped percentage, wherein when priority is assigned to data, the overlapped percentage is allocated to data and when priority is assigned to voice, the overlapped percentage is allocated to voice.

6. (original) The system of Claim 5, further comprising:

means for receiving an input of said size of each window; and

means for receiving cost factors associated with said data traffic and said voice traffic as an input to said processing means.

7. (original) The system of Claim 1, wherein a sum of said first percentage and said second percentage equals a minimum of actual percentage required and 100 percent.

8. (original) The system of Claim 1, wherein said network is a code division multiple access (CDMA) network.

9. (original) The system of Claim 1, wherein further said processing means includes:

a processor; and

a program code executed on said processor for completing said dynamically allocating of said percentages of spectral resources.

10. (original) The system of Claim 1, wherein said receiving means includes means for generating said data and voice traffic.

11. (currently amended) A method for allocating spectral resources to data and voice traffic in a communication network that supports shared frequency transmissions, said method comprising:

receiving data traffic and voice traffic;

dynamically allocating a first percentage of said spectral resources to said data traffic and a second percentage of said spectral resources to said voice traffic, wherein said first percentage and said second percentage add up to at least 100 percent of the available spectral resources and each percentage is ~~are~~ dynamically adjustable depending on a presently determined need for data traffic and voice traffic and wherein further when the first and second percentages add up to more than 100 percent, an overlapping percentage of said spectral resources is dynamically allocated to a particular one of said voice traffic and said data traffic based on a cost factor analysis for data and voice traffic; and

responsive to said dynamically allocating, transmitting both said data traffic and said voice traffic as radio frequency (RF) transmissions out to said communication network, wherein said data traffic and said voice traffic are transmitted in their respective allocated percentage of said spectral resources.

12. (original) The method of Claim 11, wherein said dynamically allocating step further comprises determining a current allocated percentage for said voice and data traffic utilizing a cost factor analysis which maximizes revenue.

13. (original) The method of Claim 11, wherein said processing step includes:

monitoring current spectral resources allocated to both said data traffic and said voice traffic;

providing a data window and a voice window bordering an actual percentage utilization of said data traffic and said voice traffic, respectively, wherein a size of each of said windows is adjustable; and

sliding said data window and said voice window to accommodate a request for additional percentage allocation of said radio frequency to said data traffic and said voice traffic,

respectively, wherein said means for sliding expands each percentage of spectral resources allocated to said data traffic and said voice traffic up to a dynamic threshold value.

14. (original) The method of Claim 13, further comprising:

calculating said dynamic threshold value as a function of current percentage allocation, desired need for both data and voice traffic, and cost, wherein said dynamic threshold value represents a point of overlap of said data window and said voice window.

15. (currently amended) The method of Claim 13, further comprising:

responsive to a total need of said data traffic and said voice traffic surpassing 100 percent of available spectral resources:

overlapping said windows at said dynamic threshold value; and

allocating a percentage of spectral resources within said overlapping windows to either voice or data depending on a predetermined priority assignment of the overlapped percentage, wherein when priority is assigned to data, the overlapped percentage is allocated to data and when priority is assigned to voice, the overlapped percentage is allocated to voice.

16. (original) The method of Claim 15, further comprising:

receiving an input of said size of each window; and

receiving cost factors associated with said data traffic and said voice traffic as input.

17. (original) The method of Claim 11, wherein a sum of said first percentage and said second percentage equals a minimum of actual percentage required and 100 percentage.

18. (original) The method of Claim 11, wherein said network is a code division multiple access (CDMA) network and said transmitting step transmits said data and voice traffic via said CDMA network.

19. (original) The method of Claim 11, wherein said receiving step includes generating said data and voice traffic.

20. (currently amended) A computer program product comprising:

a computer readable medium; and

program code on said computer readable medium for allocating spectral resources to data and voice traffic in a communication network that supports shared frequency transmissions, said program code comprising code for:

receiving data traffic and voice traffic;

dynamically allocating a first percentage of said spectral resources to said data traffic and a second percentage of said spectral resources to said voice traffic, wherein said first percentage and said second percentage add up to at least 100 percent of the available spectral resources and each percentage is ~~are~~ dynamically adjustable depending on a presently determined need for data traffic and voice traffic and wherein further when the first and second percentages add up to more than 100 percent, an overlapping percentage of said spectral resources is dynamically allocated to a particular one of said voice traffic and said data traffic based on a cost factor analysis for data and voice traffic; and

responsive to said dynamically allocating, transmitting both said data traffic and said voice traffic as radio frequency (RF) transmissions out to said communication network, wherein said data traffic and said voice traffic are transmitted in their respective allocated percentage of said spectral resources.

21. (original) The computer program product of Claim 20, wherein said program code further or dynamically allocating further comprises code for determining a current allocation percentage for said voice and data traffic utilizing a cost factor analysis which maximizes revenue.

22. (original) The computer program product of Claim 20, wherein said program code further includes code for:

monitoring current spectral resources allocated to both said data traffic and said voice traffic;

providing a data window and a voice window bordering an actual percentage utilization of said data traffic and said voice traffic, respectively, wherein a size of each of said windows is dynamically adjustable by an administrator of said processing means; and

sliding said data window and said voice window to accommodate a request for additional percentage of radio frequency allocation to said data traffic and said voice traffic, respectively,

wherein said means for sliding expands a percentage of spectral resources allocated to said data traffic and said voice traffic up to a dynamic threshold value.

23. (original) The computer program product of Claim 22, further comprising program code for:

calculating said dynamic threshold value as a function of current percentage allocation, desired need for both data and voice traffic, and cost, wherein said dynamic threshold value represents a point of overlap of said data window and said voice window.

24. (currently amended) The computer program product of Claim 22, further comprising program code for:

responsive to a total need of said data traffic and said voice traffic surpassing 100 percent of available spectral resources;

overlapping said windows at said dynamic threshold value; and

allocating a percentage of spectral resources within said overlapping windows to either voice or data depending on a predetermined priority of said overlapped state, wherein when priority is assigned to data, the overlapped percentage is allocated to data and when priority is assigned to voice, the overlapped percentage is allocated to voice.

25. (original) The computer program product of Claim 24, further comprising program code for:

receiving said size of each window; and

receiving cost factors associated with said data traffic and said voice traffic.

26. (original) The computer program product of Claim 20, wherein a sum of said first percentage and said second percentage equals a minimum of actual percentage required and 100 percentage.

27. (original) The computer program product of Claim 20, wherein said network is a code division multiple access (CDMA) network and said transmitting step transmits said data and voice traffic via said CDMA network.